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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,263	12/22/2004	Jeffrey Raymond Smidt	6106-001/NP	8978
27572 7590 08/22/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER KIM, TAE K	
			ART UNIT 2109	PAPER NUMBER
			MAIL DATE 08/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,263

Applicant(s)

SMIDT ET AL.

Examiner

Tae K. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/22/04, 08/09/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This is in response to the application filed on December 22, 2004 where Claims 1 – 29, of which Claims 1, 15, and 26 are in independent form, are presented for examination.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claims 1, 15, and 26 are objected to because of the following informalities: grammatically error in line 14; enclose "in real time" in commas or omit the word "in." Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 7, 11, 15 – 17, 21 – 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,078,953, invented by Aseem Vaid et al. (hereinafter referenced as "Vaid"), in view of U.S. Patent 6,442,588 B1, invented by Clark et al. (hereinafter referenced as "Clark").

1. Regarding Claims 1, 15, and 26, Vaid discloses of a method and system of monitoring and controlling data transfer between a user terminal coupled to a first

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communication network (Abstract; Fig. 1; method and system for controlling traffic and monitoring such traffic to ensure a quality of service within the communication network) and a second communication network via a gateway and a firewall (Abstract; Fig. 1; network includes firewall server and traffic management tool coupled to the firewall server). The disclosed system and method also simultaneously monitors at the firewall the transfer of data between the user terminal and the second communication network (Col. 10, Lines 29-36; continuous traffic management cycle that includes monitoring phase) and dynamically controls real time bandwidth available to the user terminal (Col. 18; Lines 46-51; real-time monitoring and controlling of traffic). Vaid also discloses that the traffic management is implemented using rule-based techniques within the firewall (Col. 3, Lines 38-40). However, Vaid does not specifically disclose that the user sends an access request to the gateway from the user terminal requiring access to the second communication network or that the gateway reads the access request and modifies at least one access rule in the firewall to permit access for the user terminal requesting access based on an authenticated IP address of the user terminal requesting access.

Clark discloses a method and system of monitoring and controlling data transfer between communication networks where the user sends an access request to the gateway from the user terminal requiring access to the second communication network (Fig. 2; Col. 3, Lines 20-22; user requests access to online services or internet). Clark also discloses that the gateway reads the access request and modifies at least one access rule in the firewall to permit access for the user terminal requesting access based on an authenticated IP address of the user terminal requesting access (Col. 4,

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Lines 29-39; user requested for authentication of ID and password, then IP address is assigned to user and authenticated to access the services requested). It would be obvious to one skilled in the art to apply the authentication process disclosed in Clark to the invention disclosed in Vaid. Requiring authentication of each user terminal limits the number of unauthorized users that are allowed to communicate and utilize the limited bandwidth within the communication system. This allows a communication system to better allocate the provided bandwidth and meet certain requirements or quality of service policies requested by the user.

2. Regarding Claims 2, 25, and 28, Vaid, in new of Clark, discloses all the limitations of Claims 1, 15, and 26 as stated above. Vaid further discloses that the dynamic control of bandwidth available to the user terminals occurs whilst maintaining communication of the user terminal with the second communication network (Col. 17, Lines 27-31, 35-38, and 40-48; combination of flow control and queuing is used to dynamically change bandwidth varying on the demand requested by the user while keeping the user connected).

3. Regarding Claims 3, 4, 21, and 22, Vaid, in view of Clark, discloses all the limitations of Claims 1 and 15 above. Vaid further discloses of restricting the bandwidth regardless of when it is allocated to a single user terminal or a plurality of user terminals (Fig. 1; Col. 3, Lines 21-26, 34-35; single point of access to monitor and control communication traffic either at a one computer terminal or a firewall connected to multiple users).

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4. Regarding Claims 5 and 24, Vaid, in view of Clark, discloses all the limitations of Claims 1 and 15 above. Vaid further discloses that the bandwidth is restricted for uploading data and/or downloading data (Col. 12; Lines 59-61).

5. Regarding Claim 6, Vaid, in view of Clark, discloses all the limitations of Claim 1 above. Vaid further discloses that the restricted bandwidth is allocated to one or more terminals for a prescribed time period (Col. 10, Lines 37-39; monitor and control activities at various times).

6. Regarding Claim 7, Vaid, in view of Clark, discloses all the limitations of Claim 1 above. Vaid further discloses that a restricted bandwidth is allocated to one or more terminals on the basis of a priority status allocated to the one or more terminals or a user account (Col. 10, Lines 44-46, 49-52).

7. Regarding Claims 11 and 23, Vaid, in view of Clark, discloses all the limitations of Claims 1 and 15 above. Vaid further discloses of controlling the access of a user terminal to the second communication network from a management terminal coupled to the first communication network and restricting bandwidth to a user account (Col. 13, Lines 1-5, and 32-43; FAIR module controls the bandwidth by parameters such as class, session, burst, packet, and others; class examples include IP address, subnet mask, destination, etc.).

8. Regarding Claims 16 – 18, Vaid, in view of Clark, discloses all the limitations of Claim 15 above. Vaid further discloses that both the firewall and gateway can be comprised in a single machine (Fig. 1; Col. 6, Lines 6-8) or in different machines (Fig. 4,

5, and 6; Col. 9, Lines 8-11 and 60-65; tool can be stand-alone at the WAN access point as a conventional firewall with a separate gateway).

Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaid, in view of Clark, and in further view of U.S. Patent 6,272,127 B1, invented by Michael E. Golden (hereinafter referenced as "Golden").

9. Regarding Claims 8 and 19, Vaid, in view of Clark, discloses all the limitations of Claims 1 and 15 as stated above. Neither Vaid nor Clark, however, specifically discloses that the user terminal can be authenticated by the gateway using an encryption/decryption process.

Golden discloses the use of data encryption/decryption to securely transmit and receive data within a packet-switched communication system (Col. 15, Lines 32-36 and 49-56). It would be obvious to one skilled in the art to use the encryption/decryption process to authenticate the user terminal that requested access to the second communication network. Instead of requesting authentication of a user terminal via user ID and password, the system itself can automatically authenticate the user terminal via the encryption keys encapsulating the transmitted data. This provides the system the ability to authenticate via software and remove the need of authenticating the communication terminal through human participation.

Claims 9, 10, 12 – 14, 20, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaid, in view of Clark, and in further view of U.S. Appl. 2002/0026503 A1, filed by Samuel Bendinelli et al. (hereinafter referenced as "Bendinelli").

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10. Regarding Claims 9, 10, 20, 27, and 29, Vaid, in view of Clark, discloses all the limitations of Claims 1, 15, and 26 as stated above. Vaid further discloses that the traffic monitoring and controlling tool based on traffic classes, which can be but not limited to, IP addresses, subnet, network, time, protocol, network, etc. (Col. 13, Lines 33-43). Vaid also disclosed that the traffic tool is the single point to manage and control traffic from one communication network to another (Fig. 1; Col. 3, Lines 21-26). Neither Vaid nor Clark, however, specifically discloses that all ports of access of one or more user terminals are monitored or that these port can be enabled and/or disabled.

Bendinelli discloses the use of additional parameters to filter the packets that are allowed to pass through the firewall, which include protocol, ports, and direction (Pg. 22, Para. 0243). It would be obvious to one skilled in the art to monitor and control the ports of access on a user terminal. Doing so provides additional measures of controlling and filtering content, which can be categorized into various traffic classes, to collaborate with the traffic policies and traffic rules that maintain and effectively utilize the bandwidth available to the communication network.

11. Regarding Claims 12 – 14, Vaid, in view of Clark, discloses all the limitations of Claim 1 as stated above. Vaid nor Clark, however, specifically discloses monitoring the period of time a user terminal has access to the second communication network, quantity of data a user terminal uploads and/or downloads, or the cost to a user having access to the second network.

Bendinelli discloses the monitoring between the gateway and base network bandwidth statistics, including quantity of data from each terminal and time intervals of

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user access to the bandwidth (Figs. 42-44; Pg. 32, Para. 0388, 0389, and 0392).

Bendinelli further discloses the method of determining the cost to the user having access to the second communication network (Fig. 29; Pg. 34, Para. 0356). It would be obvious to one skilled in the art to include such statistics to better monitor the usage in various terminals and also by various users. Monitoring both time intervals and quantity of bandwidth access allows the system to predict future uses of bandwidth and better accommodate for quality of service and user demands on the network bandwidth.

Additionally, the ability to determine the cost of a user terminal to access the second communication network would also be obvious to implement to adjust the priorities of various users. Users can pay a higher premium for higher percentages of the bandwidth and for higher quality of service requirements for the various services they are accessing within the second communication network.

Additional References

Additional references that are relevant to the pending application and not cited:

U.S. Patent 6,771,661 B1 – system and method of programming a communication device to automatically and dynamically modify allocation of resources upon a specific condition without breaking active sessions of data communications using RSVP protocol;

U.S. Patent 5,896,499 – embedded security processor used in conjunction with a main processor to provide security for a computer system and describes host-based firewalls;

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U.S. Patent 6,182,226 B1 – system and method of achieving network separation by defining a plurality of regions and configuring a set of policies for each of the regions;

U.S. Appl. 2003/0051057 A1 – system and method of controlling access to various applications using a firewall which has the ability to authenticate a computer system on an individual basis, such as authentication the IP address, or session basis, varying by application.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae K. Kim, whose telephone number is (571) 270-1979. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby, can be reached on (571) 272-4017. The fax phone number for submitting all Official communications is (703) 872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the examiner at (571) 270-2979.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).


FRANTZ COBY
SUPERVISORY PATENT EXAMINER